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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,377	04/30/2004	Ronald K. Maxwell	57640.010274	3376

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GREENBERG TRAURIG, LLP
77 WEST WACKER DRIVE
SUITE 2500
CHICAGO, IL 60601-1732

EXAMINER

ROST, ANDREW J

ART UNIT PAPER NUMBER

3751

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/709,377	Applicant(s) MAXWELL ET AL.	
	Examiner Andrew J. Rost	Art Unit 3751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/30/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the Amendment filed on 12/30/2005. No claims have been added. No claims have been cancelled. Claims 1 and 15 have been amended. Presently, claims 1-21 are pending.

Drawings

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings have poor line quality. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Objections

3. Claim 14 objected to because of the following informalities:

Replace "he" with --The--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The support shaft was not disclosed in the specification and is unclear as to which part is being referred to in Figures 3, 11a-11c.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bachmann et al. (4,327,893) in view of Imase et al. (6,023,989).

Regarding claims 1 and 15, Bachmann et al. disclose a damper containing a plate (45) having parallel sides, two rotating gears (57) that interact with racks on the edges of the plate with the gears having a center of rotation and rotating and supported by a shaft (53). Bachmann et al. does not disclose the use of pinion wheels with pinion pins that interact with a toothed rack. However, Imase et al. teach the use of a pinion wheel with pinion pins interacting with a toothed rack (Fig. 1) to perform a similar function as a gear interacting with a pin rack (Fig. 10) and to perform as a torque transmission devices that is capable of suppressing noise and vibration (Col. 2, lines

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35-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the rotating gear and pin rack of Bachmann et al. with the pinion wheel and toothed rack as taught by Imase et al. in order to suppress noise and vibrations in the damper system.

In regards to claims 2 and 16, the modified Bachmann et al. reference discloses a toothed rack on the parallel edges of the gate and a pinion wheel engaging each of the toothed racks.

In regards to claims 3 and 18, the modified Bachmann et al. reference discloses a motor for operating the pinion wheels (motor 50 in Bachmann et al.).

In regards to claims 4 and 19, the modified Bachmann et al. reference discloses the pinion wheels are operating in counter-rotating directions which cause the plate to be translated into and out of engagement.

In regards to claim 5, the modified Bachmann et al. reference discloses the pinion wheels contain two wheel-shaped plates (11 in Imase et al.) with a plurality of pins (6 in Imase et al.) connecting the two plates.

In regards to claims 6 and 7, the modified Bachmann et al. reference discloses the pins are rounded in shape and evenly spaced around a hub (Fig. 2 of Imase et al.).

In regards to claim 8, the modified Bachmann et al. reference discloses the rack and pinion may be made of iron, mild steel, plastic or ceramic material (Col. 9, lines 1-3 of Imase et al.).

In regards to claim 9, the modified Bachmann et al. reference discloses the sizing and spacing of the pins may be altered in accordance with the dimension of the rack (Col. 8, lines 65-68 of Imase et al.).

In regards to claims 10 and 19, the modified Bachmann et al. reference discloses a single motor (50 in Bachmann et al.) having a first actuator (gear box 52) that is coupled to one of the pinion wheels and a second actuator (other gear box 52) that is coupled to the other of the pinion wheels and a shaft connecting the two actuators (shaft 51 in Bachmann et al.).

In regards to claim 11, the modified Bachmann et al. reference discloses flexible joints (connection pieces used of connecting gear box 52 to the shaft 51 in Bachmann et al.) between the actuators and connecting shaft.

In regards to claim 12, the modified Bachmann et al. reference discloses rotating the pinion wheels in opposite directions.

In regards to claim 13, the modified Bachmann et al. reference discloses the plate is composed of metal and is integral to the plate.

In regards to claim 14, the modified Bachmann et al. reference discloses the pinion pins are offset from the outer edge of the pinion wheel (Fig. 1 of Imase et al.).

In regards to claim 17, the modified Bachmann et al. reference discloses the pinion wheels having two parallel plates having a polarity of pinion pins disposed about a center portion (Fig. 2 of Imase et al.).

In regards to claim 21, the modified Bachmann et al. reference discloses a hook (60) holding the seal frame (58). When disconnected from the surrounding structure, the seal frame can be removed by means of the hook.

Response to Arguments

8. Applicant's arguments, see page 13, lines 16-18, filed 12/30/2005, with respect to Meyers (2,509,161) have been fully considered and are persuasive. The rejection of 8/24/2005 has been withdrawn.

The Meyers reference has been withdrawn.

9. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

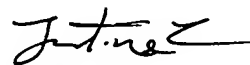
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew J. Rost whose telephone number is 571-272-2711. The examiner can normally be reached on 7:30-5 M-Th and 7:30-5 every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 571-272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Andrew J Rost
Examiner
Art Unit 3751



JUSTINE R. YU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

3/16/06